

cause transmission of a plurality of security keys at least to the at least one advertising device fulfilling the predetermined criteria, wherein the plurality of security keys cover a plurality of predetermined validity periods, each security key expiring after a corresponding validity period.

20. The apparatus of claim **14**, wherein the apparatus is further caused to:

cause transmission of information indicating only the current security key and the security key update interval to the at least one advertisement-receiving device fulfilling the predetermined criteria.

21. The apparatus of claim **14**, wherein the apparatus is further caused to:

agree with a second network node, which is associated with another network operator than the apparatus, that the generated at least one security key is valid for each advertising device and advertisement-receiving device in the service area regardless of whether the device is served by the apparatus or the second network node.

22. An apparatus, comprising:

at least one processor and at least one memory including a computer program code, wherein the at least one memory and the computer program code are configured to, with the at least one processor, cause the apparatus at least to:

establish a communication connection to a network node providing coverage to a geographically limited service area within which advertisements are transmitted from the apparatus to at least one advertisement-receiving device through direct device-to-device, D2D, communication links;

cause a reception of at least one common security key from the network node, wherein the at least one security key is for encrypting at least part of the data which is to be transmitted through the D2D communication links, each security key is valid for a predetermined validity period, and common to those at least one advertising device and at least one advertisement-receiving device within the service area which fulfill predetermined criteria, wherein the predetermined criteria requires at least one of the following: the device is within a certain service area, the device is served by a certain operator, the device is applying a certain type of service;

encrypt data on the basis of a currently valid security key; and

cause transmission of the encrypted data to the at least one advertisement-receiving device fulfilling the predetermined criteria through the D2D communication.

23. The apparatus of claim **22**, wherein the apparatus is further caused to:

cause transmission of information to the at least one active advertisement-receiving device according to predetermined synchronization, wherein the information indicates an update of the security key for at least one next validity period.

24. The apparatus of claim **22**, wherein the apparatus is further caused to:

cause transmission of information indicating the currently valid security key to the at least one active advertisement-receiving device, wherein, in addition, the security key to be used in the next validity period is ciphered with the currently valid security key.

25. An apparatus, comprising:

at least one processor and at least one memory including a computer program code, wherein the at least one memory and the computer program code are configured to, with the at least one processor, cause the apparatus at least to:

establish a communication connection to a network node providing coverage to a geographically limited service area within which advertisements are transmitted from at least one advertising device to at least one advertisement-receiving device through direct device-to-device, D2D, communication links;

cause reception of information indicating at least one security key from the network node, wherein the at least one security key is for decrypting at least part of the data to be received through the D2D communication links, each key is valid for a predetermined validity period, and common to those at least one advertising device and at least one advertisement-receiving device within the service area which fulfill predetermined criteria, wherein the predetermined criteria requires at least one of the following: the device is within a certain service area, the device is served by a certain operator, the device is applying a certain type of service;

cause reception of encrypted data from the at least one advertising device fulfilling the predetermined criteria through the D2D communication; and

decrypt the data on the basis of a currently valid security key.

26. The apparatus of claim **25**, wherein the apparatus is further caused to:

causing transmission of an activation request to the network node wherein the activation request is for receiving advertisements from at least one advertising device in the service area.

27.-28. (canceled)

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